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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,328	09/18/2001	Joseph W. Tiece	068354.0169	9619
23640	7590	11/23/2004	EXAMINER CAO, CHUN	
BAKER BOTTS, LLP 910 LOUISIANA HOUSTON, TX 77002-4995			ART UNIT 2115	PAPER NUMBER
DATE MAILED: 11/23/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/955,328	Applicant(s) TRIECE ET AL.	
	Examiner Chun Cao	Art Unit. 2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) o | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/30/04</u> . o | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-19 are presented for examination.
2. The information disclosure statement (IDS) submitted on 4/20/04 is being considered by the examiner.
3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The current title is imprecise.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for at the second state causes the CPU to access the external memory as data memory, does not reasonably provide enablement for at the second state causes the CPU which is not access the external memory as program memory or data memory. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.
6. Claims 12, 13 and 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites the limitation "the state" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "the apparatus" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitations "the debug processing" in line 4, "the software" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 is rejected because they incorporate the deficiencies of claim 17.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Cullison et al. (Cullison), U.S. patent no. 5,155,833.

As per claim 1, Cullison discloses a microcontroller, which addresses program memory separately from data memory [fig. 1], the microcontroller comprising:

a CPU [111, fig. 1]; a boot memory [119, fig. 1] coupled to the CPU [col. 2, lines 58-60];

a control coupled to the CPU and to the boot memory [115, fig. 1; col. 2, lines 49-57], which

in a first state causes the boot memory to be configured as data memory [col. 2, line 65-col. 3, line 4; col. 3, lines 45-51; col. 4, lines 9-11]; and

in a second state causes the boot memory to be configured as program memory [col. 4, lines 21-27; col. 1, line 65-col. 2, line 1].

As per claim 2, Cullison discloses that the control includes a memory control register [115, fig. 1], the memory control register comprising:

a program enable flag, which when it has a first value causes the control to be in the first state; and when it has a second value causes the control to be in the second state [col. 2, lines 49-57; col. 3, lines 27-31; col. 4, lines 47-67].

As per claim 3, Cullison further comprises an external port coupled to the CPU and to the control [fig. 1; col. 2, lines 44-48];

wherein the external port is configured as a system bus when (1) the control is in the first state, and (2) the control is in the second state and the CPU is accessing an external memory as data memory [col. 2, lines 44-48; col. 3, lines 45-58]; and

the external port is configured as an input/output port when the control is in the second state and the CPU is not accessing the external memory as program memory [col. 4, lines 8-27].

As per claim 4, Cullison discloses that the external port coupled to the control; where the external port is configured as a system bus when the boot memory is addressed as data memory; and the external port is configured as an input/output port when the boot memory is addressed as program memory [col. 3, line 52-col. 4, line 57].

As per claim 5, Cullison discloses that the external port coupled to the control; where the external port is configured as a system bus when the boot memory is addressed as data memory and when the CPU writes to an external memory via the

external port using an instruction that allows writes to program memory; and otherwise, the external port is configured as an input/output port [fig. 1; col. 3, line 52-col. 4, line 57].

As to claims 6-8 are written in mean plus function and contained the same limitations as set forth in claims 1 and 3-5. Therefore, same rejection is applied.

As to claims 9-13 basically are the corresponding elements that are carried out the method of operating steps in claims 1-5. Accordingly, claims 9-13 are rejected for the same reason as set forth for claims 1-5.

As to claims 14-16 and 19 are written in mean plus function and contained the same limitations as set forth in claims 1-5. Therefore, same rejection is applied.

Allowable Subject Matter

9. Claims 17 and 18 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Aguilar et al., US patent no. 6,785,807, teaches of loading communication software and a bootloader in to a boot memory from an external memory.

Schaefer, US patent no. 6,330,622 discloses a debugging system.

Tulpule et al., US patent no. 5,652,886, discloses a microcontroller has a boot memory, which can be configured as data memory or program memory according to different state.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun Cao whose telephone number is 571-272-3664. The examiner can normally be reached on Monday-Friday from 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chun Cao

Nov. 19, 2004